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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/617,171	07/11/2003	Ki-Tag Jeong	1293.1902	2998
21171	7590	06/23/2006	EXAMINER	
STAAS & HALSEY LLP SUITE 700 1201 NEW YORK AVENUE, N.W. WASHINGTON, DC 20005			CHEN, TIANJIE	
			ART UNIT	PAPER NUMBER
			2627	

DATE MAILED: 06/23/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/617,171

Applicant(s)

JEONG, KI-TAG

Examiner

Tianjie Chen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 May 2006.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Non-Final Rejection (RCE)

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 05/02/2006 has been entered. Claims 1-23 are pending.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takashima (US 6,787,941).

Claims 1, 5, 6, 10, 11, 15, 16, and 20; Takashima shows an actuator of a hard disk drive in Fig. 1, having coil 7, yoke 9 and magnets 15, but does not show the detailed relative position of the magnets and the portions of the coil. Takashima further shows a prior art in Figs. 8-12, wherein the relative positions between the portions of the coil and the magnets is disclosed. It would have been obvious at the time the invention was made to one of ordinary skill in the art to apply Takashima's coil with molds into Prior Art's structure disclosed in fig. 8. The rationale is as follows:

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Takashima shows that the structure in Fig. 8 is a conventional structure and Takashima also stated that his invention is only improve the strength of the coil (Column 2, lines 26-29). One of ordinary skill in the art would use the Prior Art's configuration for Takashima's coil with molds

Such constructed device includes a base plate and a voice coil motor, to move a magnetic head to record and reproduce data with respect to a disk to a predetermined position on the disk, including: a suspension 6 supporting a slider 5, where the magnetic head is mounted; and an arm 8 included on the base plate of the hard disk drive to pivot, an arm including the suspension at a leading end portion of the arm and a coil 7 (Fig. 8) of the voice coil motor coupled to a rear end portion of the arm, a set of magnets 15 (Fig. 8; column 1, line 22) arranged to be separated a predetermined distance from the coil (Fig. 8)/and normally above and below (Column 1; lines 18-19) a part of an effective portion of the coil during operation of the suspended actuator (for claim 20); wherein an area between the magnets is an effective portion and an area (where the connection mold resides) outside of the magnets is a non-effective portion and, the coil is coupled to the rear end portion of the arm by an outer mold (See Figs. 8 and 9 with added marks in next page) formed to encompass an outer circumference of the coil, an inner mold is formed inside the coil, and a connection mold connecting the outer mold and the inner mold is formed on at least part of a surface of the non-effective portion of the coil and not on the effective portion.

Claim 6, Takashima also shows a hard disk drive that reproduces data stored in a disk or records data on the disk by using a magnetic head, the hard disk drive including: an actuator including an arm included on a base plate of the hard disk drive to pivot and a suspension at a leading end portion of the arm and supporting a

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slider on which the magnetic head is mounted; and a voice coil motor including a coil coupled to a rear end portion of the arm and a magnet arranged, which is inherently separated a predetermined distance from the coil and to face at least one of upper and lower surfaces of the coil, and pivoting the actuator in a predetermined direction by the interaction between current flowing through the coil and a magnetic field formed by the magnet.

Claims 2, 7, 12, and 17; Takashima further shows that the connecting mold is formed at an entire surface of the non-effective portion of the coil.

Claims 3, 8, 13, and 18; Takashima further shows that the connection mold is formed in a middle portion along a lengthwise direction of the non-effective portion of the coil.

Claims 4, 9, 14, and 19; Takashima further shows that the connection mold is formed at at least two positions along a lengthwise direction of the non-effective portion of the coil.

Claims 5, 10, 15, 20; Takashima further shows the connecting mold is also formed on the lower surface of the non-effective portion of the coil.

Claim 21, Takashima shows a subassembly of a hard disk drive, including: a voice coil motor including a coil that has a upper and lower surface with a non-effective portion; an inner mold formed inside said coil; an outer mold formed on an outer circumference of said coil; and a connection mold connecting said outer mold and said inner mold wherein the connection mold is formed both on said upper and said lower surface of the non-effective portion of the coil.

Claim 22, as described above, Takashima shows an actuator assembly of a hard disk drive, comprising: an arm, comprising: a voice coil, an outer mold holding the

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voice coil on an outside; an inner mold holding the voice coil on an inside; and a connection mold connecting the inner mold and the outer mold across the coil.

Claim 23, Takashima further shows in Fig. 10 attached in next page that the arm has a pivot, the coil has a side away from the pivot and the connection mold is located on the side away from the pivot.

Response to Arguments

3. Applicant's arguments with respect to claims 1, 5, 6, 10, 11, 15, 16, and 20-22 have been considered but are moot in view of the new ground(s) of rejection.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tianjie Chen whose telephone number is 571-272-7570. The examiner can normally be reached on 8:00-4:30, Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hoa Nguyen can be reached on 571-272-7579. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


TIANJIE CHEN
PRIMARY EXAMINER